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THE RELATIVE VALUE OF THE AFFECTIVE AND THE INTELLECTUAL PROCESSES IN THE GENESIS OF THE PSYCHOSIS CALLED TRAUMATIC NEURASTHENIA*

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I.—Common belief that emotional shock causes permanent nervous disturbance. Psychological views regarding emotion.

The prevalent belief that emotional shock is the preponderant factor in chronic perturbations of the nervous system is receiving less and less the acceptance of neurologists; and even psychiatrists are now departing from what was once a firm conviction (1). It would be a pity, for this reason, to go to the other extreme and ignore the role of emotion in psychological and even somatic perturbations; for every psychologist must know what a rich, almost virgin, field is furnished by the quantitative study of affective reactions. In a short paper I must necessarily leave out of account the epistomological difficulties with which the subject bristles (2). We are not yet even decided whether pleasantness and unpleasantness are really sensations or differ from these in kind. There is much difference of opinion at to whether other feelings, e.g. surprise, anguish, etc., should be considered elemental equally with these. Even the co-relations of each of these are undetermined, some believing with Lagerborg (3) that pleasantness is not

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only a cognate of, but intrinsically is, of sexual character, and some believing that unpleasantness is merely an attenuated form of pain.

Nor is there agreement as to the qualitative relationship of feelings, affectivity, emotion, and passion. French neurologists of the positivistic school regard them all as "sentiments" (4) and physiologically as functions of cenesthesis, while other schools (5) place emotion in a category different from feelings on account of its relative complexity.

II.— *Emotional Shocks are Evanescent.*

The inefficacy of emotional shock to perturb for long, unless maintained by an ideational attitude, has a familiar illustration in the sudden start which all of us give at one time or another when surprised by an unexpected violent sensation. The circulatory and visceral commotion of such a stimulus has been felt by us all. It takes different forms, facial pallor, bodily perturbation, sense of contraction in the throat, sinking feeling in the abdomen, respiratory spasm, horripilation, motor asthenia, etc. But the effect of these perturbations, however violent, is evanescent, the subject in a moment resuming his occupation as if nothing had happened. It is well that it is so; for if it were not, we should still have been a race of skulking savages, shivering at each breath of wind, and incapable of that confidence needed to achieve continuous and concerted action. (See Putnam: The Treatment of Psychasthenia from the Standpoint of Social Consciousness, Am. Jour. Med. Soc., Jan., 1908.)

III.— *Unless Reinforced by Ideas.*

But very different is the result when an elementary emotional disturbance of this kind receives reinforcement from an intellectually acquired belief in its import. Every one who has observed young children can illustrate this by countless instances where an instant of alarm is so protracted by the unwise solicitude of ignorant elders that a state of terror ensues.

In the country of the negro mammy I need not prolong

the argument with examples of fear complexes (6) thus originated, which ineradicably intertwine themselves with and poison the existence of many an individual.

IV.— *Examples of Induced Affects.*

But more than this, the affective element of a fear neurosis need not even be primitive; it may be itself induced. The mechanism can be studied again most simply in the young child; and again in the Southland, no examples need be cited to make clear my meaning. The tale of voodoo, if it failed to provoke horror, would no longer appeal to the narrator. Though perhaps not so designed, yet it survives because of its power to induce emotion. This it does, partly intellectually through the ideas it conveys by speech, and partly through the lower order of intelligence appealed to by gesture, tone of voice, and perhaps too by the direct cognizance by the recipient of the emotional condition which the narrator himself experiences. From this contagion even animals are not exempt, and I believe that a psychological study of induced emotion in animals would afford data useful to the psychiatrist.

Emotion by suggestion (7) has a mechanism of this kind, and it is to a failure to appreciate this process that must be attributed much of the confusion regarding the alleged emotionalism of hysterical people. Now, hysteria is not an affective psychosis, but an idiogenetic one (8). This assertion is readily proved by experiments, which show the ease with which ideas can be planted in the minds of hysterical patients and made to exhibit themselves kinetically at the will of the operator (9). The only affective element essential in the development of a hysterical symptom is that inherent in the intellectual attitude of belief, i.e. a feeling of acquiescence; and as this sentiment is common to all conviction, it affords no differentium.

V.— *The Affectivity in Psychasthenia.*

This leads me to say a few words about a psychosis which is largely affective and of which one of the elements is the lack of this feeling of belief; I refer to the psychasthenia of Janet (10). Now, although Janet himself inclines

towards an intellectual explanation of his patient's state, many, with Regis (11), regard emotion as the primitive phenomenon in the obsessive psychosis; and some remarkably searching introspections by patients of my own inclines me towards this view. One patient states: "I do not feel it is any use reasoning away this obsession; there is something inside me, and when one is driven away another comes." Another patient, after he had described and I had disposed of one of his intellectual difficulties, declared, "That 's not it; it is this *awful* feeling; shall I ever be able to feel right again? Nothing feels the same; I enjoy nothing." These and many other examples which might be cited seem to indicate that the mental mania or obsession is merely engrafted upon a state of feeling, and is more an explanation unconsciously applied by the patient to account for his state than by an essential part of the disorder. This argument is strengthened by a study of the multiple phobias. In these fear may manifest itself *a propos* of anything or nothing.

Instances might easily be cited, but constant association complicates nearly all such chronic fears with circumstantial elements of perceptual and ideational kind, and the condition in its purity can only be seen during an acute psychosis. I quote from such a case: "I see an awful horror hanging over me. I do not want it to happen, because if it did I could never help myself (crying). . . . I have terrors inside me. I feel to be doing underhand things all the time. I feel an awful guilt and terror of being found out. They have made everything false and untrue. . . . The terror came with vomiting attacks, and a 'still feeling,' a burning and yet just a waiting feeling for something evil. . . . I feel a great weight sitting here (epigastrium); it's terror, as if my heart was still, a crushing or squeezing, a sudden jab in the heart with a general feeling of fright."

Moreover, both obsessions and phobias may be secondary to idea systems artificially induced (12); thus falling into the category of the suggestion-psychosis, hysteria, just described. It is the confounding of these cases with the true psychasthenics which has led to so much disagreement regarding the genesis of the morbid fears and obsessive

states. The distinction is fundamental to a clear understanding of the psychoneuroses (13), and hence, is one as important to the practicing physician as it is to the physiological psychologist.

VI.— *The Induction of Suggestion Psychoses. The Emotional Consequences. Cases and Discussion.*

The subject need not be conscious of these idea systems; for they may be merely intellectual potencies implicit in the psychic constitution derived from his environment. In the gross, these are most clearly manifest in what our attitude of detachment easily enables us to label the superstitions of alien peoples. Thus, the sufferings induced by the "gnawing fox" of the Japanese are made possible only by a deeply rooted belief in its existence. For example, a woman after (14) labor declared she felt the "fox coming," this was her interpretation of the after-pains she felt. The great parade by the neighbors in attempting to prevent the fox's attack only reinforced the patient's apprehension; and soon a horrible convulsion signalized her seizure by the fox. Terror and convulsions held her until the exorciser was called. He declared that the fox would leave her at four o'clock the next day, provided certain offerings were placed on a certain tomb for it to eat. This simple suggestion caused her to dismiss her terror suddenly at the hour designated.

The crudeness of the mechanism in the case of this ignorant peasant need not make us smile; for our western case is very little better, as the following illustration shows:

It is the familiar case of an incapacitated railroad employee to whom I was called to determine whether or not there was organic disease of the nervous system. The fact that there was not is shown elsewhere (14a) in the full report of the case. The psychogenesis of the man's condition was evident in his fixed idea, due to the common belief of railroad employees that serious nervous disease may slowly ensue upon an accident. This common belief was strengthened by the injudicious sympathy and inquiries of his friends, and the doubtful prognosis of some medical men he had

consulted. He "answered a thousand questions a day," he "did not know what to think about his health," and worried about his condition and circumstances: he was "too much preoccupied with his health even to miss his wife"; he had lost weight and appetite, had a sore throat, and wept much; and finally his attitude was strengthened by the lawyers who sought redress for him. He was cured within a month as a result of one interview, during which he was instructed in the role of ideas over bodily activity and the effects of worry and anxiety upon nutrition. In the certificate it was stated "there is and has been no disease of the spinal cord or peripheral nerves at play in the induction of any of the symptoms which I find. The erroneous belief that there has been such an injury powerfully contributes to the anxiety which maintains his present state."

The role of the idea of spinal commotion in perturbing this man's emotional life is strictly comparable with that of the gnawing fox of the Japanese folklore. In both cases too there was the period of reflection and incubation of the morbid notion, a familiar feature of such cases, which has been insisted upon by Souques (15). It is rare that the symptoms ensue until after a time of meditation, during which the complex is systematized.

The cure was not so simple as that of the Japanese exorcist. But it was a definite one, for the railroad breakman was taught (16) to understand the mechanism of his affection and thus to overcome any future harm from the credulity in which he had grown up. The Japanese woman, on the other hand, remained liable to another attack, as her belief in the fox was only reinforced by the manner of its removal.

A contrasting case where therapeutics failed will further push the lesson home. A government employee was injured by a falling case and remained hardly able to walk and handle himself even after his bruises of head and shoulder had healed. Called in consultation, I explained the mechanism of his present incapacity, and directed how to remove it. His family physician's acquiescence to my directions was only formal, as his bent was not psychologic enough to grasp the principles at work. The fearful solici-

tude of the man's wife, too, constantly reinforced his timidity, so that in spite of a considerable temporary improvement he did not progress to full recovery, but remained lacrymose, depressed, and relatively incapable on account of the persistence of his false belief about his health and powers.

VII.— *The False Neurasthenics.*

Even more familiar examples of suggestion-psychosis, supposedly emotional, but in reality contributed to by the wrong outlook of relatives and associates, afford a large proportion of the cases for whom rest-cure is prescribed. These false neurasthenics (17) are cured, not by the rest, but by the re-education of their point of view, which their isolation permits the physician to impose, willy nilly, and free from the interference of dear ones who are, to say the least, injudicious.

The phenomenon of the "rétour a l'enfance," although not belonging to this category, is also indicative of a foolishly protected childhood in which all development of initiative, reflection, and spontaneous action is frustrated by a mother who allows her instinct of helpfulness to destroy the morale of her child.

The emotional attacks of these hysterical females are nearly always secondary to a *notion*, which itself is a product of their false view of social relationships, expressed popularly by the word "wrongheadedness." In this regard it is very instructive to cite what one of his correspondents wrote to Dr. John K. Mitchell (18). The writer is an experienced invalid of twenty years' standing, still full of courage; she states, "It ought to be strongly said that if women were more truthful, there would be less nervous breakdowns." In other words, neuroticism often depends upon the hypocrisy which is the fruit of an unwillingness to face the truth when it appears unpleasant; it is intellectual dishonesty.

VIII.— *The Prevention of Traumatic Neurosis.*

To the traumatic psychosis the same criteria apply, and its prophylaxis depends upon the same considerations

as psychoprophylaxis in general. Upon these I need not enlarge, as I have so recently discussed the subject at length (19) showing the facility with which trends of thought can be determined in early childhood to obtund and finally to efface emotions injurious to self or others, and how paramount is the need for the genetic element in order to build up the affective-ideational-dynamic complex which constitutes the effective altruistic character.

IX.—*Diagnostic Considerations.*

It remains to indicate shortly the differentia of the condition we are considering from (1) physical neurasthenia, (2) the psychasthenic states and (3) the mental alienations, in all of which occur phenomena easily confused by the uncritical with the true suggestion-psychoses (20).

(1) In neurasthenia, the physical misery which is its cause and which arises from an intoxication of the whole organism, intrains psychic wretchedness also, and depressive emotion is a feature. This is not at all psychogenetic, although it may be temporarily modified by psychic means more or less. Even the psychological criteria may permit of a diagnosis; but it is to the physical factors that we physicians mainly look to detect the condition.

(2) Constitutional or acquired psychasthenia is differentiable (21) by (a) the failure of suggestive therapy to modify the symptoms as well as by (b) the history of the genesis, in which suggestion plays no part. Moreover, (c) the idea complexes of hystericals are evoked by well-defined and not numerous associations (d) their arousal in a psychasthenic often appears irrelevant. (e) Conduct in the psychasthenic is hardly affected except negatively through doubt and aboulia, whereas the conduct of the hysterical patient depends largely upon the pathological notions by which he is governed and which determines most definite acts. Finally, upon the angoissé emotion of psychasthenia, psychotherapy is of no avail, whereas the crisis of hysteria is most easily arrested by psychic means, the emotion vanishing as by a miracle as soon as the causative idea is dispelled by command, suggestion, distraction, or

persuasion. Again, (g) while re-education can teach a psychasthenic only to learn how to bear the sufferings incident to his unfortunate condition, it can from the hysteric entirely remove the tendency to perturbing induced-emotion and the social discomfort it brings.

(3) The curtailment of power of association in *general paralysis* often leads to an increased suggestibility, which in turn leads to morbid adaptations to environment like that outlined in the traumatic psychosis. The clinical importance of this is greater than its theoretical bearing, for physical traumata are often the occasion for the symptomatic outbreak caused by the meningo-encephalitic process which had been up to then latent. The physical condition and psychometrical data (21) will usually enable a distinction to be made between the incidental suggestion-psychosis of the paretic (which is soon, so to speak, swallowed up by progressive dementia) and the functional psychosis we are discussing.

From the *dementing psychosis of adolescence*, the theoretical differences are on the surface sometimes not very clear; but practically the diagnosis is rarely difficult, on account of the efflorescence of somatic and psychic perturbations which usually accompany the exalted suggestibility of the precocious dement.

The trigger-like response to suggestion which characterizes the *maniacal* phase of the *cyclothymic* individual is distinguishable by its mutability; and the same remark applies to the facility of the *chronic alcoholic*, in whom, moreover, the emotional reactions are often markedly exalted independently of ideation. But these considerations do not abolish the susceptibility of the victims of alcohol to the induced emotion of suggestion-psychosis, whether traumatic or not.

The diagnosis in all of these conditions is determined by the fact that only a few of the phenomena, and those unessential, are influenced by the mechanism of suggestion, which we have found to be the essential and indeed sole determinant of the psychosis known as traumatic neurasthenia.

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THE ANXIETY NEUROSES*

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FREUD divides the neuroses into psycho and actual neuroses. The psychoneuroses comprise hysteria and compulsion neurosis (doubts, obsessions, and phobias), while the actual neuroses include neurasthenia and anxiety neurosis. The sexual life plays an important part in the determination of both classes. But whereas hysteria and compulsion neurosis are altogether of a psychogenetic origin, neurasthenia and anxiety neurosis are due to somatic sexual injuries. Without entering into the psychoneuroses which I have discussed elsewhere (1), I will confine myself to the anxiety neuroses.

That anxiety plays a part in the neuroses was fully recognized by almost all writers on this subject; but its isolation into a separate entity, and its reference to a special sexual etiology was first established by Freud in his dissertation, "On the Right to Separate from Neurasthenia a Definite Symptom Complex as Anxiety Neurosis" (2).

Before going into the etiology of anxiety neurosis I will first enumerate the clinical symptoms which are as follows:

1. General irritability. This frequent symptom especially expresses itself in auditory hyperesthesia, and is a frequent cause of insomnia.

2. Anxious expectation which manifests itself in an uneasiness and a tendency to pessimistic conception of things, or in a tendency to "make mountains out of mole hills." Persons showing this symptom evince a frequent tendency to pangs of conscience, scrupulosity, and pedantry. Anxious expectation is the most essential symptom of the neurosis.

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There seems to be a quantum of freely floating anxiety which is forever ready to unite itself with any suitable ideation.

3. Anxiousness can also suddenly break into consciousness without being aroused by the issue of an idea. Such attacks consist either of the anxious feeling alone without any associated idea, or of the nearest interpretation of the termination of life, such as ideas of sudden death or threatening insanity, or the anxious feeling may be combined with a disturbance of one or many somatic functions, such as respiration, cardiac activity, the vasomotor innervation, and the glandular activity. The patient may complain of "heart spasm," "heavy breathing," inordinate appetite, profuse perspiration, etc.

The amount of admixture of these elements varies extraordinarily, and any accompanying symptom may alone constitute the attack. Accordingly there are rudimentary attacks of anxiety, and equivalents for the attack of anxiety. The following equivalents may be mentioned:

(*a.*) Attacks of disturbance of heart action, such as palpitation, transitory arrhythmia, with longer continued tachycardia;

(*b.*) Attacks of respiratory disturbances, many forms of nervous dyspnœa and asthma-like attacks;

(*c.*) Attacks of profuse perspiration, often nocturnal;

(*d.*) Attacks of trembling and shaking which may be readily mistaken for hysterical attacks;

(*e.*) Attacks of inordinate appetite, often combined with dizziness;

(*f.*) Attacks of diarrhoea;

(*g.*) Attacks of locomotor dizziness;

(*h.*) Attacks of congestion embracing also the so-called vasomotor neurasthenia;

(*i.*) Attacks of paresthesias. (These are seldom without anxiety or a similar discomfort);

(*j.*) Sudden terrified awakening;

(*k.*) Frequency of micturition; and,

(*l.*) Cramplike muscular attacks.

All these symptoms may appear alone or in combination, and on examination it is always found that the patient

suffers besides from the cardinal symptoms, such as irritability, anxious expectation, etc.

According to Freud and his followers, the etiology of anxiety neurosis is to be found in a series of sexual injuries and other influences from the sexual life. A consideration of the various kinds of sexual injuries and influences which act as etiological determinants is beyond the scope of this paper. In the case here reported the particular determinant of the anxiety symptom-complex could be traced to a mental conflict between sexual impulses on the one hand and repressive ideas on the other. It fully sustains, therefore, the Freud doctrine.

The symptom complex thus described is separated from neurasthenia, which, according to Forel, is nothing but a " big garbage can," into which everything is thrown. As the typical symptoms of neurasthenia, Freud designates headaches, spinal irritation, dyspepsia with flatulence and constipation. Neurasthenia always originates whenever the adequate (action) unburdening is replaced by a less adequate one (3). Viewed in this narrow sense neurasthenia becomes rather rare, and can be readily differentiated from the different pseudo-neurasthenias, such as the organically determined nasal reflex neurosis, the neurotic disturbances of cachexias and arterio-sclerosis, the early stages of paresis, and of some psychoses.

Hence we see that the actual neuroses, neurasthenia, and anxiety neurosis, differ materially from the psychoneuroses, compulsion neurosis and hysteria. The latter group are due to purely psychogenetic factors, while the first are due to somatic sexual injuries.

In my paper on the psychoneuroses (4), I have pointed out that the characteristic moment of hysteria, according to Freud, is the ability to convert the psychic into the physical. That is whenever we find the classical symptoms of hysteria, such as paralyses, contractures, aphonias, convulsions, astasia abasia, etc., we deal with a conversion hysteria. In contradistinction to this the symptoms due to somatic sexual injuries belong to anxiety neurosis.

It was found, however, that no definite lines could be drawn; that besides the somatic sexual injuries the anxiety

neuroses also showed a psychic mechanism. This psychic mechanism is the same as in hysteria, but instead of conversion into physical symptoms, there is anxiety. "The anxiety is, as it were, the only symptom into which the psychic excitement is converted." The etiology, the role of repression, and the psychic processes are the same as in hysteria. For this new class of cases Freud suggested the term "anxiety-hysteria," and the whole group was first described by Stekel in his interesting and instructive book (5).

My own experience based on forty-three cases of anxiety neurosis and anxiety hysteria points to the fact that there is a psychic element in almost all cases of anxiety. I could demonstrate it in nearly all my cases. The short time at my disposal does not allow me to cite many cases, so I will briefly describe the psychanalysis of a case of anxiety hysteria.

Mrs. L., thirty-eight years old, Austrian, married, having four healthy children, was seen by me in the department of psychiatry in the Vanderbilt Clinic, in October, 1908. She complained of nervousness, depression, anxiety, and insomnia, from which she suffered for about two weeks. On questioning her I found that this was her sixth attack, that the first attack came on six years ago, and repeated itself annually, usually lasting about two months. Like the doctor who saw her before me, I thought of manic depressive insanity, but on closer examination I changed my diagnosis to anxiety hysteria. Her family history was negative. She herself claimed that she was never sick before her present illness. Anthropologically and otherwise she corresponded to her type — Austrian Jewess. Physically there was nothing worthy to note.

When I asked her to tell me her chief complaint, she said that it was the depression and anxiety. She stated that her attacks were not all alike. Thus, her first attack began very suddenly, and was characterized by marked anxiety, depression, apprehension, and insomnia. The second, third, and fourth attacks were considerably milder, the depression being the main symptom, while the fifth again showed the anxiety and insomnia. Her symptoms did not in any way incapacitate her, she attended to her housework

as usual, and there was absolutely no psycho-motor retardation. She maintained, however, that she felt miserably, that she was afraid that something would happen to her, and that she often cried without knowing why. There were no distinct phobias, but in all her attacks she showed the characteristic *folie du doute*. Thus, during her attacks she often got out of bed, " at least a dozen times," to ascertain whether the door was properly locked, or whether the gas was turned off. Besides the symptoms enumerated she also showed the aforecited cardinal symptoms of anxiety neurosis. What influenced me in diagnosticating anxiety hysteria was the typical sexual etiology. The first attack came on two years after her husband left for the United States, during which time she lived a virtuous life. For the following three years, while with her husband, she gave birth to two children, and thus her emotional needs were fully satisfied. After the fourth child was born she wanted no more children, and her husband practiced coitus interruptus. That seemed to account for the difference in the symptoms of the various attacks. For lack of gratification is a very frequent cause of insomnia, particularly in people showing nothing else to account for it. But of course we have not accounted for the depression which was present in every attack.

As soon as I decided on the diagnosis, I proceeded with the psychanalysis. I usually begin by asking the patient to give me a full account of the origin of the disease. She knew that the first attack came on about six years ago, just before she came to the United States. Her husband left her in Austria with two children, and after having been away for about two years he sent for her to join him in New York. It was while she was getting ready for her journey that the first attack came on, and continued for about two months. She was quite certain that it had no connection with her leaving Austria; on the contrary, she was more than glad to join her husband. The subsequent attacks came on periodically every fall. She also recalled that her attacks came together with the Jewish fall holidays. More than this she did not know. I attempted an association experiment, but either she refused her co-operation, or she was unable to grasp the meaning of the procedure. As I attri-

buted her depression and anxiety to the repression of painful or disagreeable reminiscences, and as the dream is the *via regia* to the unconscious or the repression, I asked her to tell me some of her dreams, but she insisted that she had not dreamed for years. She finally recalled, however, having had a dream before or at the beginning of her first attack. This was the dream:

" *I walked on the street, and a horse harnessed to a wagon was running towards me. I could not get out of its way; the horse was almost on me. I put out my arm to push it away, when it caught my hand in its mouth and bit me. Screaming, I awoke terrified.*"

These were the " manifest " thoughts of the dream, and to those acquainted with Freud's theories they are quite significant. In analyzing dreams we simply translate the manifest into the latent thoughts. The manifest thoughts have apparently no meaning, but the latent thoughts are senseful and always show the hidden fulfilment of a repressed wish. As the dream occurred before or at the onset of the attack, I assumed that it had some relation to it, as dreams are always based on experiences or thoughts of the day preceding the dream. Also, the fear in the dream pointed to its being of a sexual nature (6), and I suspected that the horse was simply a sexual symbol.

With the brief time at my disposal I am unable to give you a full exposition on the mechanism and technique of the analysis of dreams; those who are interested in the subject should study Freud's Traumdeutung (7). On asking the patient to tell something about the horse, she stated that it was a bay horse and very spirited. That was all she knew. When I urged her to tell me all the thoughts that occurred to her in this connection, she impatiently remarked," I don't know what to tell you; I could talk about horses for hours. I know quite a bit about horses, as I lived next door to a government horse-breeding station." She then displayed considerable emotivity, but on being urged to tell whatever was in her mind she stated that she witnessed the practical details of horse breeding at a very early age. Indeed, she was certain that this was her first conscious sexual impression. " Of course," she added, " I was too young to know the

real meaning of things. I imagined that the horses were fighting." This sadistic conception is very common in children, and as Freud shows in his paper, "Concerning Infantile Sexual Theories," children always interpret the sexual act in that sense (8). There was a sudden blocking, and when asked to continue she suddenly recalled something which had no connection with horses. The evening before the dream, while sitting in the room with some neighbors, some animal, perhaps a mouse or rat, ran out of the brick stove into the bed. Unlike her sex she was ordinarily not afraid of mice or rats, but this time she was terribly frightened and continued to be so for hours. She rummaged through the bed and found nothing; still she was afraid to sleep in this bed. This recalled that this attack of fright happened a few hours after an unsuccessful attempt to sell her feather beds. She again became silent, and claimed that her stream of thoughts was exhausted. Suspecting that her attack of fear was the manifestation of a mental conflict in a sexual abstainer, I asked her why she was so terrified at the sight of what she imagined was a mouse or rat, if she was ordinarily not afraid of these animals. Her ready response was that she was never afraid of the real mouse or rat, but that at that time she imagined that they were only apparitions, and that some one tried to exert some evil influence over her by magic. She laughingly added that she no longer believed in such nonsense. Then I asked her who she thought tried to exert an evil influence over her, and why that was attempted, she at first refused to answer, remarking that the whole thing was not worth talking about; but after considerable urging she said that she then believed that it was a man who offered to buy her feather beds. With great emotivity and hesitation she described this man, whom we will call X., as a very disagreeable and impudent fellow. He wished to buy her feather beds, but for some reason she could not come to any terms with him. He, however, persisted in calling on her until she became so tired of seeing him that she hid herself whenever she saw him coming. She suddenly broke off her narrative, and when I urged her to continue she became very indignant, she saw no reason for the revival of all this foolishness, she was very sure that

this questioning had nothing to do with her disease, etc., etc. Such outbursts are very frequent in the course of psychanalysis, and always occur when we strike the main complex (9).

As soon as I knew the circumstances of the case, and after hearing the dream, I thought of *cherchez l'homme*, and after witnessing her emotional outburst I was sure that I had my man. As I said above, the dream showed a mental conflict of a sexual nature, and the attack of fear, too, as I will show later, symbolically represented a sexual attack. Indeed the whole setting was such that there was no doubt in my mind that she had some sexual experience with X., and that her periodic attacks of depression merely represented the former libido changed into depression by the repression.

After calming her I frankly told her that I was convinced that she was concealing something, that I believed that she had had some affair with Mr. X., and that unless she told me everything I could do nothing for her. She emphatically denied my assumptions, but would not explain why she had to hide when she saw Mr. X., and why she thought he tried to exert evil influences over her. She became very indignant when I was equally assertive in my statements, and left me rather abruptly. I made no attempt to restrain her or remonstrate with her because my experience taught me that it is of no avail, and that it is well to give the patient a chance to fully discharge her repressed emotions.

Two days later she returned, but this time she looked quite dejected and penitent. A few kind remarks from me helped her to disburden herself. Weeping, she made the following confession: "Since I left you I was very miserable. I have cried most of the time; the whole thing came back to me, and I could not banish it from my mind, so I decided to come and tell you all." She then assured me that for the two years that she was separated from her husband she lived a virtuous life. She was hardly ever bothered by erotic thoughts, and had no difficulty in suppressing them when they came. While getting ready to join her husband in America she sold her household effects, and X. wanted to buy her feather beds. While she showed him the feather beds he joked with her about her coming journey to America, and alluded to her future happiness with her husband. This

aroused some erotic thoughts, and when X. accompanied his talk by touching her suggestively, she was surprised not to have resented it. In brief, she met him a number of times, always on the pretense of selling the feather beds, and was afterwards surprised at her own weakness. She, however, assured me that she had not broken her marriage vows. " That is the only thing I have not done." It was after she suddenly awoke to the gravity of the situation that she refused to see him and feared him. She was really afraid of herself; she did not trust herself. These experiences which gave rise to a number of erotic thoughts and fancies were then changed into displeasure. It was then that she was afraid to sleep alone with her children, and had to ask a neighbor to sleep with her, and it was about the same time that the rat incident occurred which made her think of magic. This was due to the fact that even after she stopped seeing X. she continued to have sexual thoughts and fancies. The more she tried to banish them the more they came. By association of ideas they recalled to her all her sexual experiences, such as early masturbation, etc., which in view of their persistence against her own will she could attribute only to some external power— magic. Of course it must be remembered that there was a time in her life when she actually believed in magical influence, and owing to the mental upset the repressed complex simply came to the surface. Similar mechanisms are at the basis of hallucinations and delusions (10).

The other mechanisms of the case are quite simple. As I said above the nature of the dream shows that it deals with sexual emotions. We also showed that horse was intimately connected with her first sexual impressions. She also stated that when she masturbated later in life, the horse often served to arouse her sexual fancies. In the dream when " the horse was almost on her," i.e., when she almost yielded to temptation, her moral self gained the upper hand, and she " put out her arm to push it away." She, however, sustained a scar, her hand was bitten. That part of the dream is constellated by the following facts. She was actually bitten by a horse at the age of six; and her early observations of horse breeding had often excited her passions

and induced repetition of her habit. The same effect had been produced in her by the visits of X. The horse in the dream therefore may be taken in this sense as symbolizing X. who recalls her early impressions of sexuality. The dream often makes use of such symbolization. The coarse sexual is always under repression, and hence we see instead its inrooted associations. It is merely a metonomy based on cause and effect. Horses, bulls, dogs, cats, and chickens are often sexual symbols in dreams, because it is with these animals that children are apt first to see the sexual procedures (11). Our patient conceives sexual relations in the sadistic sense, they were first impressed upon her in childhood by the breeding operation above referred to. Indeed, her dream merely symbolizes these relations as shown by the cited association and the expression, " the horse was almost on me." The biting, too, she vividly recalled seeing while watching the horses. The dream therefore represents the hidden fulfilment of a repressed wish, while the fear is the libido changed by repression into pain.

It still remains to explain why the depressions continued to recur annually. The incidents enumerated above occurred before the Jewish Day of Atonement, and it was on this day, which is the most solemn day for the orthodox Jew, that her actions appeared to her in the most lurid colors. This is the day on which all true believers are inscribed in the " Book of Life " or " Book of Death." It is a day of fasting and confession, and she certainly had a lot to confess. She could not consider her sins forgiven, and dreaded some impending evil, perhaps an accident at sea. She came to the United States about five weeks later, and was still in a state of depression, but it soon wore off. But every year with the approach of this solemn day the depression returned. She merely celebrated the anniversary of her painful experience. She never recalled the original episode, because it was of a disagreeable and painful nature; the accompanying emotions, however, came to the surface and constituted the depression. Such depressions are very common, and are often mistaken for manic depressive insanity. I myself have seen three cases of similar depressions within the last two years.

After the analysis was completed the patient felt much

relieved and grateful. I saw her a week later and there was not a trace of her former depression, she was cheerful and happy, and expressed her surprise at the sudden disappearance of her symptoms. She attributed it all to the mixture of rhubarb and soda which I gave her. She has had no attack of depression since then.

This short analysis teaches a number of things. First. There is a group of cases of periodic depression which do not belong to manic depressive insanity. They are anxiety hysterias based on somatic and psychosexual traumata. I am convinced that many cases that I have seen during my hospital service which were classified as manic depressive insanity and as "depressions not sufficiently distinguished," belong to this category. Second. Freud's psychanalysis is, in my opinion, the only rational therapy for such cases, as we not only unravel the hidden mechanisms, but also remove the somatic sexual traumas by correcting the abnormal sexual life. Third. The importance of dream analysis need hardly be emphasized. It is the *sine qua non* of the treatment.

A few words about the importance of examining the patient's psychosexual life. This, of course, presupposes a number of prerequisites. Not only must the physician himself be able to approach the subject without prudishness and lewdness, but he must perforce know something about psychosexuality. Unfortunately there are very few men in this country who take the subject seriously. Most physicians either ridicule or scorn those who have the courage to cope with sexual problems. For reasons known to themselves, but which we sometimes find in our psychanalytic work, the word sexuality suffices to arouse their righteous indignation, and to cause them to condemn everything connected with it. They seem to forget that there are other sexual maladies besides the venereal diseases requiring scientific treatment. Whatever is has a reason, and it is the duty of every scientific man to view the cold facts honestly and fearlessly. Much unhappiness and misery would be eradicated if we would not leave these poor sexually distressed victims to the charlatans and quacks, who not only rob them financially, but add to their misery, and often drive them to suicide.

I have successfully treated by Freud's psychanalytic method cases of homosexuality, psychic impotence, and sexual anæsthesia in women, and many other so-called perversions, and my patients and I feel that distinct good has been done. To those who condemn us for recognizing the sexual life, I can quote no fitter words than those of St. Augustine: " If what I have written scandalizes any prudish persons, let them rather accuse the turpitude of their own thoughts than the words I have been obliged to use."

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THE NATURE AND CAUSE OF THE GALVANIC PHENOMENON *

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THE Russian physiologist Tarchanov is regarded as the discoverer of the interesting fact that psychic states, sensory, affective, emotional, volitional, and even intellectual processes, such as calculation, solutions of mathematical problems bring about galvanic deflections. As a result of his investigation, which is but a preliminary communication, he conjectures that the deflections may be due to secretory changes going on in the epidermis.

According to Féré, the galvanometric deflections are due to lowering of bodily resistance under the influence of emotional states. The assumptions of skin secretions and the lowering of bodily resistance have been accepted uncritically by almost all investigators of the subject. It is assumed that the galvanic deflections are due to lowering of electrical resistance of the body through the agency of skin secretions produced by psychic states or by psychophysiological processes. Some investigators also implicate the sympathetic and the central nervous system.

In a study of galvanometric deflections, due to psychophysiological processes, published in the *Psychological Review* for September, 1908, and January, 1909,† we demonstrated by a series of experiments that the galvanic phenomenon is not due to a change of resistance of the body, but to an electromotive force generated in the organism. We come to the following conclusion: "Active psycho-physiological processes, sensory, and emotional processes, with the exception of purely ideational ones, initiated in a living organism bring about electro-motive forces with consequent galvanometric deflections." In a new series of experiments performed on animals such as frogs, rabbits, and cats we further confirm the nature of the galvanic phenomenon

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†Abstract in next number.

and demonstrate its causation. This last study is to appear in the *Psychological Review*, March, 1910. I can give here but a bare outline of it.

All investigators of the subject use cells in their circuit. In our experiments cells were excluded from the circuit. We worked with non-polarizable subcutaneous electrodes. The galvanometer was of D'Arsonval type, sensitivity, 225 meghoms. The deflections of the ray were in centimeters and millimeters. Later on a special mechanism was devised for photographing the deflections. Let me give an example of a couple of experiments: Hypodermic electrodes inserted in forelegs of rabbit

Zero reading, when circuit open .....24 cms.
Zero reading, when circuit closed .....24 cms.
Stimulus, prick .....rose to 25 cms.
Galvanometer, returned to .....24 cms.
Fresh rabbit hypodermic electrodes inside of thigh:
Zero reading circuit open .....24 cms.
Galvanometric reading, circuit closed.....24 cms.

Stimulus, snap on nose, galvanometric deflection rose to 20.50 returned 24 centimeters.

Anæsthetics such as chloroform and ether abolished the galvanic phenomenon which reappeared when the effect of the anæsthetic passed off. It was also observed that violent peristalsis, struggles, twitchings, and convulsions produced under the influence of various drugs, such as aloin, oleum ricini, oleum tiglii, apomorphine, strychnine, and others, in short all forms of motor activity, produced marked galvanometric deflections.

In the first part of our work on animals we were led by our experiments to the following conclusions:

(1) Every sensory stimulation of an affective or emotional value is accompanied by galvanic deflection.

(2) Motor reactions intensify the galvanic phenomenon, giving rise to more extensive deflections.

(3) Motor activity by itself is sufficient to give rise to large galvanometric deflections.

(5) The subcutaneous electrodes excluding the epidermis prove that the galvanic perturbations produced by stimulations are not due to skin effects.

On opening and closing the circuit the galvanometric zero reading remains unchanged, that is, there is no current flowing in the circuit. If now with circuit closed and galvanometer at zero reading, we prick, pinch, burn, or stimulate the animal in various ways, we get galvanometric deflections. It is clear that we deal here not with a change of resistance, whether of skin or of body, but with generation of an electromotive force. Our experiments therefore prove conclusively that the galvanic phenomenon is not due to changes of resistance, but to *electromotive forces* induced in the organism by the psychophysiological processes under the influence of external stimulations.

An examination of the results under anæsthesia showed large galvanometric perturbations when the anæsthetic was administered, and again when the animal was passing from under the influence of the drug. Stimulations produced marked deflections during the period preceding and following the state of deep narcosis. We could not help, however, noticing that movements and struggles on the part of the animal were uniformly accompanied by large galvanometric deflections. When the motor activity diminished the observed galvanometric deflections decreased correspondingly, and when the animal was completely motionless the galvanic perturbations entirely disappeared. The same relation was observed in the case of various drugs inducing peristalsis. Peristalsis accompanied by motor activity, by struggles, twitchings, shiverings, convulsions, and generally by muscular contractions, produced galvanometric deflections proportionate to the extent of muscular activity. Where all motor activity was absent, although the action of the drug continued, no galvanometric changes could be detected. Thus in the case of peristalsis, accompanied by large contractions of the intestinal tract and by general condition of straining of abdominal muscles there were large deflections. During the intermediate period of peristalsis when the animal was quiet no deflections were present. This also holds true even of such cathartic drugs as aloin and croton oil. The effect of apomorphine is especially interesting from this standpoint. The injection of apomorphine into the rabbit does not produce vomiting, but causes continuous shivering and twitch-

ings of almost all the muscles. The result is a corresponding ceaseless fluctuation of the mirror-galvanometer. Not less instructive is the injection of strychnine, which gives rise to twitchings and convulsions, with corresponding deflections of the mirror galvanometer.

The same relation holds true, even in the case of the galvanometric deflections due to various stimulations. Where the stimulation was accompanied with motor reaction there the deflection was manifest; where such reaction was absent the galvanic deflection did not appear. All these facts point to the conclusion that the concomitant motor activity plays an important and possibly a predominant role in the causation of the galvanic phenomenon.

If such relation between motor activity and the galvanic phenomenon exists, it should be demonstrated, after all other possible factors are rigidly excluded, by some crucial experiments.

The first crucial experiment that naturally suggests itself is the restriction of the muscular activity of the animal and the observation of galvanic deflections when the animal is stimulated by pinches, pricks, snaps, and various other painful agencies. If muscular contractions are concerned in the causation of the galvanic phenomenon, we should find that with their diminution and total suppression the galvanic phenomenon should be correspondingly decreased and even totally abolished. With this end in view we performed the following experiments:

The hind legs of a rabbit were firmly bound, so that they could not move. With the platinum electrode inserted well into the muscles of the motionless thighs the circuit was closed. Under such conditions no stimulations however painful could call forth galvanometric deflections. In other words, with the suppression of muscular action the galvanic reaction disappears.

With the platinum electrodes in the same position one of the legs was left free to move. When the rabbit was now stimulated, the free leg, of course, contracted, and the galvanic deflections were evident in response to each stimulation. In other words, with the reinstatement of muscular action the galvanic phenomenon once more reappeared. The ex-

periment is crucial, inasmuch as it excludes all other possible factors, such as secretion, whether of skin or of other glands; it excludes circulation, whether of lymphatics or of blood vessels, and rules out the action of the sympathetic and of the central nervous system. For if any of these physiological processes give rise to the galvanic phenomenon the latter should persist in our experiments, since all these processes are not arrested with the restriction of the movements of the leg.

In our previous experiments we have excluded circulation as the cause of the galvanic phenomenon. This was accomplished by means of Esmarch bandages. In our present experiments with animals we excluded circulation by ligations of the arteries supplying the limb. Under such conditions the galvanic phenomenon still persisted.

The skin effects have practically been excluded by the whole course of our experiments, inasmuch as we worked exclusively with hypodermic electrodes, and were still obtaining the galvanic phenomenon.

The skin effects can also be ruled out by the following experiment: The animal is securely immobilized and the electrodes are inserted into the skin. The galvanic phenomenon is absent with the immobolization of the limbs.

If, on the other hand, the skin is stripped clean from the hind legs of a frog (the skin comes off smoothly and easily), and the electrodes are inserted into the striped muscles, the galvanic phenomenon persists and is quite marked.

We can now account for the significant fact that struggles, twitchings, and convulsions are followed by large galvanometric deflections. All our experiments tend to prove that *the galvanic phenomenon is essentially a muscular phenomenon.* In other words, the observed galvanometric deflections under the influence of affective states are due to electromotive forces liberated by muscular activity brought about by sensory, emotional, and affective processes.

That the galvanic reaction is entirely muscular in origin can be still further demonstrated by the following experiments:

The motor nerves of the muscles of the legs of a frog were cut so that the legs were paralyzed. The platinum

electrodes were inserted into the paralyzed muscles. Under such conditions the galvanic phenomenon was completely absent. No stimulations, however intense and painful, could call forth the vanished galvanic reflex.

The experiment of section of the motor nerves of the legs is a crucial one, inasmuch as the galvanic phenomenon disappears on the paralysis of muscular activity, although all other conditions — skin secretions, circulation, and sensation — remain unchanged. Moreover, the galvanic phenomenon can be reinstated, even under conditions of paralysis of motility by bringing about passive contractions of the muscles of the leg.

Another crucial experiment is that of injection of curare. It is a well-known fact that curare paralyzes only striped or voluntary muscles, all other functions remaining unaffected. Now when the frog or the rabbit is injected with curare and kept alive by artificial respiration, the galvanic phenomenon disappears. In other words, the paralysis of muscular activity causes the disappearance of the galvanic phenomenon.

Thus all our experiments prove incontestably that *the galvanic phenomenon is due to an electromotive force which is muscular in origin.*

ABSTRACTS

NEW POINTS OF VIEW IN THE QUESTION OF CEREBRAL LOCALIZATION.* (*"Neue Gesichtspunkte in der Frage nach der Lokalisation im Grosshirn."*) *By Prof. C. v. Monakow. Correspondenzblatt für Schweizer Aerzte*, 1909, *No.* 12.

In this article Professor Monakow summarizes in succinct fashion his views underlying the principles of cerebral localization as expressed for many years past in his theory of diaschisis.

Recognizing the general acceptance of the theory of localization and its great practical importance to the physician in diagnosis, v. Monakow has drawn attention to the fact that much yet remains to be explained in the modern localization theory and that even in relation to many elementary matters there are still noteworthy contradictions. As an example is the not infrequent experience that lesions of certain areas of the cortex, whether within or without the sense areas, may lead to no symptoms; or, on the other hand, that localized cortical symptoms may occur without adequate anatomical post-mortem explanation. Furthermore, it is recognized that with apparently similar pathological processes clinical symptoms may vary widely in different cases, a condition also for which often there is no adequate post-mortem explanation. In general, therefore, our experience is such that we at least in man are not able to say with definiteness what the minimal local conditions may be, which must be produced by a lesion localized in a definite cortical area. Such uncertainty exists in aphasia, apraxia, agnosia, as well as in many coarse unilateral disturbances of innervation, as, for example, hemianopsia, hemiataxia, or hemianesthesia.

It not infrequently happens that on the one hand the localization of a defined cortical lesion may be accurately determined from the symptoms, and on the other that great difficulty may arise in determining a diagnosis, even in the presence of extensive lesions of the cerebral cortex. Such contradictory experiences led Goltz, Loeb, Brown-Séquard, and others to combat, if not the theory of localization itself, at least the localization of function in the cerebral cortex. Although to-day the opponents of localization are no longer active,

*See also, Ueber den gegenwärtigen Stand der Frage nach der Localization im Grosshirn, Erg. d. Physiologie, 1902, 1904, 1907.

the fact remains that many contradictions must still be met, especially since more stringent demands are being made as to the principles underlying the general theory.

Admitting that the clinical attitude at present toward localization demands a readjustment, it becomes necessary to determine, if possible, where the mistake lies in the understanding of the general question. The first positive observations on cerebral localization led to a maplike division of the cortex into somewhat definite centers, whence arose the popular idea that sharply circumscribed areas were responsible for various more or less definite physiological results. As an example of this method of considering the subject may be mentioned the insistence upon circumscribed centers for ideas of movement, centers for hearing, speech, and finally in the last few years for intellect as advocated by Flechsig. This sharp localization is forthwith met by the difficulty that at times the complicated reactions demanded, for example, by the recognition of objects, the higher attributes of speech, etc., may be preserved even when the associated centers, together with their conducting paths, are injured or destroyed. On the other hand, it may be argued against the opponents of sharp localization that very frequently entirely characteristic local irritative or paralytic effects may be observed in definite superficial lesions, which permit an accurate diagnosis of the position of the disturbance. Such experiences, for example, as Jacksonian spasm, monoplegias from lesions in the anterior central convolution, cortical hemianopsia from lesions in the calcarine region, are striking in their positive testimony. In general, no one versed in the subject will deny the local diagnostic significance of the well-known cortical symptoms. The point of importance merely is that now as formerly the negative and positive testimony stands opposed, and again a discussion of the theory is demanded, particularly in relation to a possible explanation of the apparent contradictions.

Adherents of a strict localization have explained that in those cases where the expected symptoms do not follow a circumscribed cortex lesion a reason is to be sought, either in the fact that a portion of the center has not been destroyed and remains functionally competent, or that a function may, in certain individuals, be about equally represented in both hemispheres, whereby the corresponding center in the sound hemisphere forthwith completely assumes the function of the damaged center. A further explanation, when function gradually returns, after a focal lesion, and a retrogression of the pathologi-

cal process may be excluded, is that other portions of the brain take on a vicarious function. This hypothesis of vicarious function has, no doubt, been made to explain too much, and its adherents perhaps do not fully realize that instead of being a support to the theory of sharp localization, its tendency rather is to deny the specificity of the different cortical areas, and therewith the fundamental basis of the theory. A more rational interpretation is that most of the cerebral functions are represented in sharply defined cortical areas by a few components, the main representation with wide individual differences being in the entire cortex. Particularly difficult to explain by the hypothesis of vicarious function are the higher mental processes, as, for example, those represented by speech. It is difficult to conceive that the experiences of speech gained through a lifetime may be quickly regained, for example, after a total destruction of Broca's convolution, an experience which has been more than once described, as in a case reported by Bramwell.

The results of experimental investigation have been of great value in distinguishing between temporary initial symptoms and residual or focal symptoms. Residual symptoms, as yet imperfectly understood in man, are, among others, hemiataxic disturbances after lesion of the ventral and stereoagnosis in lesion of the dorsal central convolution, hemianopsia, after destruction of the visual area, etc. Permanent residual symptoms are in general relatively coarse disturbances of movements of orientation, which may be produced, not only by cortical lesions, but also by a break in the subcortical conduction. In general, temporary localized symptoms are those of "higher dignity," as, for example, those proceeding from the various organs of special sense, higher spatial orientation, aphasic disturbances, and in addition certain coarse symptoms like flaccid hemiplegia or total hemianesthesia. For the present purpose the temporary symptoms are of greater significance, namely, those which quickly disappear, or which entirely fail after focal cortical lesions. In order to approach this question it is necessary to emancipate ourselves entirely from the identification of the localization of the symptoms of disease with a localization of function. The localization of the so-called focal symptoms is essentially a complicated reaction on the part of the uninjured portions of the central nervous system on the focal, cortical lesion. The localization of a function, on the other hand, is the distribution of the physiologically analyzed elements of the function among the mechanisms in the entire central nervous

system entrusted with that function. One may therefore consider every reaction of the nervous system as due to an anatomical loss of fibres produced by the lesion, a loss not only of anatomical centers, but also of points of recognition for the realization of definite mechanisms, or again the reactions of the nervous system may be considered to be caused by elements which stand in relation with the nature and the methods of action of the pathological process. It happens not infrequently that the pathological conditions themselves do not suffice to explain the diversity of clinical symptoms and their varied associations, nor their appearance and disappearance, since at times very severe local symptoms may appear and remain fixed for a long period in the absence of a pathological condition. It therefore becomes necessary to resort by way of explanation, not to a coarse anatomical lesion, but rather to dynamic factors.

On the basis of his experiments in the removal of the cerebral hemispheres in dogs, Goltz arrived at a theory of active inhibition induced by irritative processes resulting from destroyed cortex. von Monakow's acceptance of the Goltz teaching is modified to the degree that he regards the irritative inhibition as a condition allied with shock ; not as an active abnormal irritative phenomenon, but rather as a passive disturbance, a paralytic phenomenon. From the inhibitory effects as distinguished from anatomical, circulatory, and other pathological conditions is derived the theory of diaschisis. By this term is meant an inhibition of function, shocklike in character, for the most part produced by an acute focal lesion in a primarily not-injured portion of the brain lying at a distance from the lesion, but anatomically associated with it. Through the break in the conduction fibers proceeding from the focal lesion, it happens that numerous eccentric lying portions of the brain are robbed of their natural sources of stimulation and in part isolated; depending somewhat upon the position and size of the original lesion, commissural, association, and corticospinal projection fibres may be involved, leading to effects often in distant parts of the brain. It also follows that inasmuch as certain areas are directly isolated from functional connection with other areas portions of the brain through neighboring neurone complexes may be affected functionally, although no anatomical changes can be observed. As a result of a nerve cell group directly injured, that group is reduced to a condition of more or less permanent inactivity; secondary degeneration results on the anatomical side leading to more distant disturbances in related cells.

This constitutes the basis of so-called residual symptoms. Indirectly those neurones associated functionally in any way with the primary lesion suffer more superficially after the manner of shock. This constitutes the basis of the so-called temporary symptoms. The anatomical element plays in diaschisis an indirect but a determining role as marking the point of origin of various subsequent disturbances, permanent and temporary. The character of the symptoms depends naturally upon the extent of the lesion, upon its position, and upon the dignity of the various tracts involved. The gradual return of many functions is explained by the overcoming or natural retrogression of the diaschisis under the influence of the restoration of those tracts which have remained normal throughout the entire central nervous system and especially at those points immediately connected with the primary focal injury.

Two matters need further explanation,— first, how are those cases to be explained in which, following a definite local cortical lesion, the classic symptoms are established and remain stationary for years or up to the death of the patient, and in the second place, why do not symptoms of diaschisis develop regularly in every case of cortical lesion? The answer to the first question is not difficult. The continuance of temporary accompanying symptoms should, under no circumstances, be confused with actual residual symptoms. Such temporary symptoms, even should they become chronic, are to be regarded merely as a protracted diaschisis action. According to this conception most of the cases of permanent aphasia, agnosia, soul blindness, etc., belong in this category. In these cases it must be assumed that the diaschisis, in its nature temporary, cannot be overcome for various reasons through the restoration of those fiber tracts which remain normal. The situation is caused usually through vascular disturbances, through congenital lack of resistance, through a progressive character of the lesion, by the influence of unfavorable psychic conditions, and similar causes. It remains for the future to determine the exact relation of these various factors in postponing a return of function. It is, in other words, essential for our future knowledge to determine exactly what the residual symptoms are and their physiological significance. Through a careful study of the doctrine of diaschisis it may become possible not only to determine the anatomical condition necessary for the loss of a given function, but also to interpret the dynamic relations and to estimate the upbuilding of individual functions out of their different

components. The objection that this theory reduces the significance of the anatomical element is not pertinent. A sharp fundamental division of clinical symptoms into those which are an essential consequence of anatomical defects, and those which are caused only by dynamic conditions, is to be regarded as a distinct step in progress. The anatomical side of the question gains rather than loses in importance, inasmuch as very much greater attention must be given to anatomical details, if we are to determine more definitely the various possibilities of diaschisis. The study of secondary degeneration in the hemispheres, particularly through serial sections of the entire brain, histological examination of cells and physiological methods must be used in the elucidation of the problem. By this means it is conceivable that a rational localization of clinical symptoms in the brain may be secured. When this task has been in a measure accomplished the far greater difficulty of localizing function will present itself. This must ultimately be accomplished by a reconsideration of the components entering into a function. In regard to this difficult problem it may be said that we cannot explain cortical localization under any single principle. A careful determination of the physiological elements of most of the functions and more accurate definition as to what can be localized, and what not is essential. At present there is considerable ground for a belief in so-called focal localization in relation to the muscular system. Very much less certain is the localization in the cortex for those elements which provide the anatomical basis of the rhythmic activity of the foci. Of the representation of memory and its allied elements of spatial orientation we know only that it lies in most varied portions of the cortex, and under no circumstances may be regarded as sharply localized. In spite of Flechsig's theory of intellectual centers nothing definite is to be said of the localization of the higher psychic functions. Before such investigations are undertaken it is necessary to busy ourselves with psychological study in order that we may learn more clearly what the physiological-anatomical arrangement of the cell groups is in relation to their capacity to store up stimuli. In answer to the second question it may be said that diaschisis presumably always takes place, but is at times quickly removed.

The general conclusions of v. Monakow's work are as follows: The symptoms of defect following a cerebral lesion are not to be regarded alone as the consequence of the anatomical destruction of nerve elements, or of accompanying pathological processes in

definite cortical areas, but also as results of concomitant dynamic influences which take origin from such cortical and subcortical gray areas, often widely separated from the original lesion, as are connected with the lesion through fiber tracts, and which in elective fashion spread in the neighborhood of the destroyed neurones. This dynamic action is in principle temporary, but leads to a widespread diaschisis as its immediate consequence. In general we have previously endeavored to localize developed functions in the cortex before having determined what in principle can be localized and what not. v. Monakow's conception is that only elementary components of a function may be localized in the cortex, and only those that serve spatial orientation, together with the most closely associated motor response of a given stimulus. All other conditions proceeding from the sense areas, as, for example, the finer differentiation of stimuli, memory components, feelings, above all psychic factors, in which the time element plays the main role,— all of these cannot be localized sharply in the cortex. If this statement is in general true, it follows that between the anatomical lesion and the clinical picture of disease a certain "something" lies that we do not yet understand, certain varying, co-ordinating, regulating factors, or to speak more precisely, certain dynamic modes of action, having only an indirect connection with the anatomical lesion, which are temporary, but under certain circumstances may also remain stable. In this factor lies the argument for the principle of diaschisis.

E. W. Taylor.

HALLUCINATORY MEMORIES (UEBER HALLUZINATORISCHE ERINNERUNGEN). *By Prof. W. v. Bechterew. Zentralblatt für Nervenheilkunde und Psychiatrie.* 1909, Heft. 12, S. 421.

In the following article Bechterew discusses a peculiar condition in which the patient reproduces early events, visual or auditory perceptions as hallucinations. One patient, an old spinster, living in a cloister, after influenza had a necrosis of both ear drums and became deaf. In the cloister she had charge of the teaching of a number of girls, and after her illness developed illusions and hallucinations. She heard words and sentences and often while at work heard the nuns calling her by name. She also heard a conversation which had taken place a year before between her and the manageress of an institution where she had been an instructor in handiwork. A

pupil had become awkward in her work and the patient had put her in a lower class. The manageress, the other pupils, and the pupil herself had begged her to again receive the girl in her class, and she had done so. The whole event came back to her as vividly as the original event. On another occasion she heard the voice of an old acquaintance who related to her his whole life history, all of which she knew very well.

Another patient, an alcoholic, with an alcoholic hallucinosis described his hallucinations as follows: one morning as he went to his work an old woman asked him for alms, but as he had no money with him he gave her nothing. After she was far away from him he heard very plainly behind him a voice saying, "Student, help me." During the day while at work he often heard the same voice.

Analogous hallucinatory memories also occur in the form of optical pictures. One patient saw distinctly a restaurant where he had dined with some friends a few days previously. This man had other visual hallucinations in which past events were accurately reproduced.

In epilepsy the author finds that hallucinations which reproduce some real perception often announce an approaching attack. In one case the last word which the patient heard was reproduced as an hallucination, and he heard this word repeated until he lost consciousness.

One woman, aged forty-two, without a history of epilepsy, had two attacks of fainting. She saw strange people before her, was very much frightened, and then awakened and remembered it all as a dream. On one occasion she heard a voice calling to her and she recalled other memories as hallucinations. The author considers the dreams which are reproduced as hallucinations before an epileptic attack to be in the same class.

In another case a young man who had suffered for some time with headache finally developed neurasthenic symptoms, dreamt a great deal, but on awakening was not able to recall the dreams until one day he had a headache and hallucinations in which the dream pictures were reproduced. Another patient suffering from a luetic brain disease complained of headache at the vertex and on the left side of the head. The patient said that after a bath in a hot room he fell into a stuporous condition and saw what he had dreamed some time before. In the vision he recognized all that had happened in the dream, but remembered the details poorly.

In the following case the phenomenon is quite striking. A woman, aged thirty-eight, after the birth of her fifth child had a right-sided paresis. This woman from her earliest childhood had the peculiarity of living over again in her dreams the things which had interested her during the day. Her sleep, usually normal, was somewhat disturbed when she was dreaming. On awakening she could recall every detail of the dream clearly. This case is an example of extraordinary clear reproduction of real happenings in dreams, but cases of this sort less marked are not rare.

In epilepsy the hallucinatory reproductions occur as auræ and at the beginning of the attacks. In hysteria, also, the content of the hallucinations is frequently some past experience.

These hallucinatory memories of past occurrences have a significance in the pathogenesis of hallucinations and the phenomenon is worthy of study on that account.

CHARLES RICKSHER.

THE HYSTERIA PROBLEM (ZUR FRAGE DER HYSTERIE. HYSTERIE UND SPONDYLITIS, HYSTERISCHE ISCHURIE, SIMULATION.) *von Priv.-Doz. Dr. Milt. Oecconomakis. Neurologisches Centralblatt.* August 1, 1909. S. 790.

THE author describes a case of hysteria which is very instructive from a diagnostic standpoint, and which bears on Babinski's theory of the reality and clinical definition of the disease. The history is as follows: The patient is a girl aged twenty-five years, single. Her father was an alcoholic, and her mother was a very nervous woman. When she was eighteen years of age she had a dry pleurisy. Since infancy she was nervous and rather irritable. Puberty occurred at fourteen, and since then she has suffered a great deal from severe headaches. Independently of the headaches she had nervous attacks with vertigo, tremor of the head and extremities, which gradually increased, until she had general convulsions with disturbance of consciousness, but no auræ or globus.

Four years before admission she was greatly frightened when a young man who lived in the house threatened his mother with a knife. This caused the patient to have a severe headache, and after several days an oliguria and dysuria, and soon afterwards she had a complete retention of urine. After several doses of methyline blue, by which the urine was colored green, she voluntarily micturated twice. Since then she has been catheterized twice daily. Accompanying

the retention was an obstinate constipation which persisted. Three years before admission she had pain in the region of both kidneys and went to the Greek hospital in Smyrna, where she remained three months but did not improve.

After her return home a year later following an attack of headache she suffered a paralysis of the lower, with equilateral flexor and adductor contracture of the upper extremities, and at the same time had severe pain in the lumbar region. This was called an organic disease by the physicians, but after a startling dream a month and a half later all the paralysis and contracture suddenly disappeared. Three months before admission she was again in Smyrna, and while being catheterized the catheter broke and a piece remained in the bladder. After three days there was an urethral and bladder inflammation, with clouding of the urine and a swelling in the right inguinal region. This swelling was hard, painful, but showed no cutaneous reddening, and lasted about a month. Her physician examined her with a cystoscope and diagnosed a possible kidney lesion. After this examination she had a nervous attack, in which the swollen half of the abdomen twitched in a rhythmical fashion and the swelling gradually lessened in size parallel with the clearing of the urine. Six weeks before admission she had severe pain in the lumbar region, which extended to the side and front and surrounded the lower abdomen as a girdle. Two days later she had a complete paralysis of the lower limbs, which, with the pain in the back and the retention of urine, persisted until admission, August 5, 1908. Physicians in Athens had diagnosed caries of the lumbar vertebræ and had advised her to go to another hospital as incurable.

On admission she showed a flaccid paralysis of the legs, with hypotonus. The patellar reflexes were normal, there was no Babinski, and no change in the electrical reactions. The lower extremities showed a loss of all cutaneous sensations up to a point five centimeters above the umbilicus and surrounding the body. Above this was a strip ten centimeters in breadth in which the senses were normal. Above this involving the head and arms they are diminished and below the elbows they are quite absent. The patient complained of pain in the kidney region on both sides, but when her attention was distracted sharp pressure elicited no pain.

From the findings the diagnosis of hysteria was made and a course of treatment outlined, but her relatives removed her after seventeen days. A month later she was returned to the clinic with a

complete paralysis of all her extremities. At this time the skin showed normal sensibility in two small areas, the anterior one being four centimeters above and below the umbilicus, and the posterior one occupying a similar position on the back. On passive movement of the upper and lower extremities there was slight contraction of the muscle masses. The patient complained of pain in the lumbar region, and raising the skin over the lumbar vertebræ increases it. She remained in the clinic about three months, the paralysis and loss of sensibility improving considerably, and was again removed by her sister.

In this case on a superficial examination one found pain in the lumbar region, with a slight scoliosis, a paraplegia of the lower extremities, and a marked rectal and bladder disturbance, all of which pointed to a tubercular process in the lumbar vertebræ. In addition she gave a positive reaction to von Pirquet's tuberculin test, and there were some physical signs of tuberculosis in the right apex. On these symptoms several physicians based their diagnosis of spondylitis tuberculosa.

On a more careful examination it was found that the lumbar pain was not limited to the lumbar vertebræ, but extended to the neighboring vertebræ. The bladder trouble was a simple retention, and not an incontinence, and was favorably influenced by the suggestive action of methyline blue. The paralysis was complete, but the patellar reflexes were normal, and there was no atrophy or change in the electrical reaction. In addition there was narrowing of the visual fields, defects in the cutaneous sensibility, the symptoms appeared in an abnormal sequence, and relapses occurred after a remarkable dream, following which the lameness was increased. Suggestive treatment in the clinic caused a marked amelioration in the symptoms.

Conversation with the patient disclosed the fact that the oliguria and ischuria were caused by pure suggestion. Before her illness she had heard two women speaking of these troubles; one had retention following the use of some drug, and the other had suffered for many years with bladder trouble, following spinal cord disease. After this the patient had an affect-shock, in which her normal hypersuggestibility was very much increased and the use of some antineuralgic remedy, possibly antipyrine, caused some unpleasant renal action which brought before her the picture of an incontinence, and since then she has not been able to voluntarily empty her bladder. Later, in the hospital in Smyrna, she observed patients who suffered from

paralysis of the extremities either with or without bladder disturbance.

While hysterical ischuria is not frequent, the long duration of this condition, a year or more, is rather rare. Various authors speak of it lasting from a week to one and one half years, but in this case it persisted for four years.

The entire history of this case shows that as one symptom began to disappear, others appeared, and the author believes that one is justified in agreeing with Babinski that there was an " action contre-psychotherapique," which hindered the therapeutic action, but he is uncertain whether this new action was simulated or not. At any rate, Babinski, he thinks, is correct when he says that the phenomena of suggestion and simulation have the same basis.

CHARLES RICKSHER.

REVIEWS

AN INTRODUCTION TO SOCIAL PSYCHOLOGY. *By Wm. McDougall, Boston.* LUCE & Co. $1.50 net.

PROFESSOR MCDOUGALL'S valuable contributions to the development of our conceptions of neural activity, and later to psychophysical and psychological theory, have long since led neurologists and psychologists alike to turn with interest to all work from his pen. All students of the first order are found eager to turn from their special fields to studies that appeal strongly to other thinkers of their time, with the hope that the modes of thought to which theoretical considerations have led them may prove helpful in the elucidation of the problems raised by these studies beyond their own fields. And Dr. McDougall is no exception to this rule, for we find him in the book before us reflecting the influence of modern sociological discussions, and presenting new evidence of that versatility of mind which he has already shown in other directions.

This is an era in which sociological questions arouse universal interest. But as our author contends, they have all too often been approached without adequate study of the psychological data upon which, as he justly holds, they must be based if advance towards their solution is to be made.

No one can deny that there has been, as he says, too general an assumption "that men normally and in the vast majority of cases act reasonably." But such a presupposition is surely unwarranted, and Dr. McDougall rightly contends that men are really "moved

by a variety of impulses, whose nature has been determined through long ages of the evolutionary process without reference to the life of men in civilized societies."

Human "springs of action" thus appear to be in the main instinctive, and not primarily intelligent, as is too often taken for granted. But this has been so often overlooked by those dealing with sociological questions that our author renders a service in calling our attention to the fact that we cannot expect to reach the solution of the social problems of our day until we have undertaken a more thorough study of our impulsive life than we have thus far made.

Starting with the emphasis of the important point that our emotions are the psychic counterparts of the instinctive actions which determine our impulses, he aims in this work to make firm, in part at least, the foundations upon which a valid sociology may be based, by an examination of the nature of our most notable emotions and emotional attitudes.

It would do Dr. McDougall an injustice were we to attempt here to present even a summary of the course of his argument, or of the conclusions he reaches as the result of his study; the book must be read if one is to appreciate the strength of his contentions and the keen analysis of obscure phases of our emotional life with which its pages are replete.

He follows Shand in holding that emotional dispositions organize themselves into systems which, under different conditions, yield different emotional reactions in relation to the same object. These emotional systems, he, with Shand, calls "sentiments," and his aim is to discover what may be the primitive emotions by the combination of which the emotional life, as we experience it, is evolved.

His analysis leads him to hold that these sentiments may all be traced back to a limited number of simple emotions, which are the coincidents of clearly defined instinctive activities. He reaches the conclusion that our impulsive life is in the main statable in terms of the following instincts, and their corresponding emotions: (1) the instinct of flight, — the emotion of fear; (2) the instinct of repulsion,— the emotion of disgust; (3) the instinct of curiosity,— the emotion of wonder; (4) the instinct of pugnacity,— the emotion of anger; (5) the instincts of self-abasement and of self-assertion,— the emotions of subjection and of elation; (6) the parental instinct, — the tender emotion; and (7) the instinct of reproduction; (8)

the gregarious instinct; (9) the instinct of acquisition, and (10) the instinct of construction; the emotional states corresponding with these last four being insufficiently definite to acquire specific names.

That the instincts thus called primary are of fundamental importance is certainly true; and the effective discussions of our author in regard to them are in the main convincing. He would probably, however, be the first to acknowledge that certain revisions of his scheme will result from a fuller study and a rigid criticism; and it must be confessed that his positions seem somewhat weakened by his acknowledgment that the last four of the important instincts referred to above do not correspond with clearly defined and separable emotional attitudes. It would appear probable that these four instincts at least may after all not be primary, but rather systematized compounds of instincts of a still more fundamental nature.

In fact, it is questionable whether any of the instincts mentioned can be claimed to be really primary if our author's method of inquiry is pressed to its logical conclusion. For, as he himself says, in the passage quoted above, the nature of our human impulses "has been determined through long ages of the evolutionary process;" and if this is true, it would appear that the most elementary of human emotions, as we appreciate them, must really be compounds of still more fundamental ones, similar to such as must have been experienced by the simpler organisms from which man has developed.

The writer of this review has in his *Instinct and Reason* made an attempt to classify our emotions on the assumption that even those of them into which, as Dr. McDougall contends, the sentiments are resolvable, must be looked upon as developments of very much simpler emotions, if we may call them such, which have appeared in the experience of our far-off animal ancestors. Certain of these hypothetical emotions, which, under such a view, may really be called primary, must, in all probability, have come down to us with much less complex modification than others; and these may therefore be held to be nearer the original stock, so to speak, and therefore of special significance in a hierarchical classification.

However unsatisfactory the outcome of the particular attempt here referred to may have appeared, the principle involved would seem to be not unworthy of development. And if upon examination the results of this development seem promising, it may be found that, for service in the establishment of a well-grounded social

science, a classification of our impulses may best be made on the genetic lines thus suggested. At all events a searching inquiry might well be made, to discover evidence favorable to such a conception, by observation of abnormal psychic phenomena in our fellows; and not without hope of fruitful result. For it is, of course, impossible to determine the nature of such hypothetical primary emotions by the study of the emotional life of the animals themselves; of their psychic life we can gain no knowledge other than that given by reading into their minds experiences corresponding to their observable instinctive reactions, and these must of course be based upon an interpretation of our own mental life. There is good ground, however, for the belief that such light may be thrown upon this obscure field by the study of the mental life of those unfortunate members of our race who seem to have drifted backward toward those animal forms from which we are all descended, and to the amelioration of whose lot the readers of this JOURNAL are devoted. It is in this connection especially that this work of Dr. McDougall's strongly commends itself to the attention of those dealing with abnormal psychology. That the book is of equal significance to students of normal psychology, of sociology, of political theory, and of pedagogical method, need not be dwelt upon in these pages.

HENRY RUTGERS MARSHALL.

JAHRBUCH FÜR PSYCHO-ANALYTISCHE UND FÜR PSYCHO-PATHOLOGISCHE FORSCHUNGEN. *Herausgegeben von Professoren Bleuler und Freud, Redigiert von Dr. Jung.* Bd. I. Ie Hälfte (Deuticke, Wien.).

THE striking increase in the output of literature on the subject of Freud's psycho-analytic researches, and the inordinate space demanded for the adequate treatment of the questions raised and description of the cases thus investigated, has made it indispensable to found a special journal devoted to it. It will appear twice a year, and if the promise inspired by the first volume is maintained the appearance of each number will be eventful in the history of the development of this science. Owing to the amount and originality of the contents (there are three hundred and eighteen pages in the first number), it is impossible here to do more than indicate the nature of them. The style of the articles naturally presupposes a knowledge of the previous work of Freud and his school, and is therefore not

suited to those who are beginning the study of the subject. To those familiar with that work it need only be said that the Jahrbuch contains a fund of material of the greatest interest and value. To those not familiar with it one can only say that the sooner they become so the better, if they wish to learn the power of modern psychology, as well as of psychopathology, and to follow it in its future evolution.

1. Freud. Analysis of the phobia of a five year old boy. In this detailed study Freud gives from direct observation an excellent confirmation of the conclusions concerning infantile sexual life previously maintained from his psycho-analytic study of the adult, and expounded in his Drei Abhandlungen zur Sexual-theorie, and in a later article on the subject (reviewed by Brill in the *Journal of Nervous and Mental Diseases*, August, 1909, p. 503). We have here the first glimpse into that side of childhood psychology which is of such fundamental importance for the development of future traits.

2. Abraham. The position of consanguineous marriages in the psychology of the neuroses. Abraham here very ingeniously shows how certain phenomena previously ascribed to heredity are to be explained by factors of early development.

3. Maeder. Sexuality and Epilepsy. This is a detailed study of the sexual life and characteristics of epileptics, which will be continued in a later number of the *Jahrbuch*. Maeder attempts to define the sexual traits peculiar to this disease, as Freud has done for the psycho-neuroses and Jung for dementia præcox.

4. Jung. The significance of the father for the fate of the individual. In this very suggestive and original work Jung, illustrating his theses with apt examples, traces the various ways in which the character of the father stamps itself, by interaction and reaction, on the children, and gives many penetrating sidelights into the intimate relations of family life.

5. Ludwig Binswanger. Attempt at an analysis of a case of hysteria. This fine analysis, only the first half of which is here printed, is extrinsically interesting in that it was carried out at the Jena clinic by request of Professor Binswanger, the accepted German authority on hysteria.

ERNEST JONES.

PROCEEDINGS OF THE AMERICAN PSYCHOPATHOLOGICAL ASSOCIATION

THE first annual meeting of the American Psychopathological Association was held at the New Willard Hotel, Washington, D.C., May 2, 1910, at 10.30 A.M., with Dr. Morton Prince in the chair as president pro tem. At this meeting the association was formally organized.

Dr. Prince was elected president for the ensuing year, and Dr. G. A. Waterman was elected secretary and treasurer.

It was decided to leave the drawing up of a constitution and by-laws to an executive committee consisting of five members and that this body, with the president and secretary, should act as a temporary committee on elections to membership for the ensuing year, and should also decide upon the time and place of the next meeting. Dr. A. R. Allen (Philadelphia), Dr. J. J. Putnam (Boston), Dr. Adolf Meyer (Baltimore), Dr. August Hoch (New York), and Dr. Ernest Jones (Toronto), were elected as members of this committee.

It was decided that the official name of the society should be the American Psychopathological Association, and that THE JOURNAL OF ABNORMAL PSYCHOLOGY should be made its official organ.

The following papers were then presented to the association: (1) The Sex Symbolism in Dreams, Dr. J. J. Putnam; (2) The Action of Suggestion in Therapeutics, Dr. Ernest Jones; (3) The Anxiety Neuroses, Dr. A. A. Brill; (4) Dreams as a Cause of Symptoms, Dr. G. A. Waterman; (5) Mechanism of Dreams, Dr. Morton Prince.

Owing to the similarity of the subject matter of the papers presented it was deemed advisable to discuss them collectively after all had been read. For this same reason the publication of the discussion relative to the paper by Dr. A. A. Brill which appears in the present number of THE JOURNAL will be postponed until after the publication of the other papers.

ANNOUNCEMENT TO OUR SUBSCRIBERS

THE JOURNAL, in becoming the official organ of the American Psychopathological Association, enlarges the scope of its work, and we hope of its usefulness. The proceedings of this new association, which is the outcome of the modern movement in the study of abnormal psychology and the psychoneuroses, will contain many contributions which will deal with these latter as specific diseases.

The JOURNAL therefore hereafter will include amongst its articles those which may be characterized as distinctly medical in the sense of dealing with specific disease forms, though always from the point of view of pathological psychology. It will therefore perhaps more than heretofore appeal to practitioners of medicine. *It will not, however, limit in any respect the special field of psychopathology to which it has been devoted.* To the student of psychology the pyschoneuroses offer data of the greatest importance in the study of the mechanism of the mind.

The JOURNAL therefore will necessarily publish amongst others, articles dealing with these affections from the point of view of what has come to be known as the Freud school of psychology. This school has gained in Europe and in this country so many adherents who are extraordinarily active and prolific in their work, that any up to date journal of psychology must present their contributions to present day psychological problems whether in normal or abnormal life. Dr. Brill's article in this issue, which was read at the first meeting of the new association, exemplifies this school.

Unfortunately for journals intended for the reading of the general public this school of psychology seeks to trace the etiological factor in many functional nervous diseases and other psychological phenomena to disturbances of the sexual life; consequently, for the proper presentation of the principles of this psychology, it is unavoidable that the physiological and psychological details of this side of the human organism should be laid bare.

A journal devoted to psychology, and particularly to abnormal psychology, therefore, cannot avoid, as perhaps it is not desirable that it should, the publication of articles which deal with such problems. To the medical practitioner, of course, such discussions are an essential part of his education, while the psychologist can no longer avoid them.

In what has just been said, we do not wish to over-emphasize the importance or number of the articles dealing with Freud's psychology, which may appear in these pages, but only to state in advance the extension of the scope of this JOURNAL as the organ of the new association.— THE EDITOR.